

CHAPTER 23

Flooding, Sedimentation and Erosion Control

Article I Flood Damage Prevention

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ARTICLE I

Flood Damage Prevention

Division 1

Generally

Sec. 23-1. Scope; purpose.

(A) This Article shall apply to all Special Flood Hazard Areas and areas removed from the floodplain by the issuance of a FEMA Letter of Map Revision Based on Fill (LOMR-F) within the jurisdiction of the City of Idaho Springs, Colorado.

(B) It is the purpose of this Article to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- (1) To protect human life and health.
- (2) To minimize expenditure of public money for costly flood control projects.
- (3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
- (4) To minimize prolonged business interruptions.
- (5) To minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, streets and bridges, located in areas of flood hazard.
- (6) To help maintain a stable tax base by providing for the second use and development of areas of flood hazard so as to minimize future flood blight areas.
- (7) To ensure that potential buyers are notified that property is in an area of flood hazard.
- (8) To ensure that those who occupy the areas of flood hazard assume responsibility for their actions.

(Ord. 8 §1, 2006; Ord. 1 § 2, 2014)

Sec. 23-2. Methods of accomplishing purpose.

(A) In order to accomplish its purposes, this Article includes methods and provisions for:

(1) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.

(2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.

(3) Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel flood waters.

(4) Controlling filling, grading, dredging and other development which may increase flood damage.

(5) Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

(B) In addition to the regulations set forth in this Article, the requirements for flood-resistant construction contained in the City's Building Code, specifically Appendix G, shall also apply. Where the regulations contained herein and the regulations in the Building Code conflict, the more restrictive regulations shall apply.

(Ord. 8 §1, 2006; Ord. 1 § 2, 2014)

Sec. 23-3. Flood Insurance Rate Map adopted.

The Special Flood Hazard Areas identified by the Federal Emergency Management Agency in a scientific and engineering report entitled "The Flood Insurance Study for Clear Creek County, Colorado and Incorporated Areas," dated July 17, 2012, with an accompanying Flood Insurance Rate Map and any revisions thereto are hereby adopted by reference and declared to be a part of this Article. These Special Flood Hazard Areas identified by the FIS and attendant mapping are the minimum area of applicability of this Article and may be supplemented by studies designated and approved

by the City Council, from time to time. The Flood Insurance Study (FIS), DFIRMs and FIRMs are on file at the City Clerk's office.
(Ord. 8 §1, 2006; Ord. 1 §1, 2007; Ord. 5 §1, 2012; Ord. 1 §2, 2014)

Sec. 23-4. Definitions.

Unless specifically defined below, words or phrases used in this Article shall be interpreted so as to give them the meaning they have in common usage and to give this Article its most reasonable application:

Addition. Any activity that expands the enclosed footprint or increases the square footage of an existing structure.

Appeal. A request for a review by the Variance Board of the Floodplain Administrator's interpretation of any provision of this Article.

Base Flood Elevation (BFE). The elevation shown on a FEMA Flood Insurance Rate Map for Zones AE, AH, A1-A30, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO, V1-V30, and VE that indicates the water surface elevation resulting from a flood that has a one percent chance of equaling or exceeding that level in any given year.

Basement. Any area of a building having its floor sub-grade (below ground level) on all sides.

Channel. The physical confine of stream or waterway consisting of a bed and stream banks, existing in a variety of geometries.

Channelization. The artificial creation, enlargement or realignment of a stream channel.

Code of Federal Regulations (CFR). The codification of the general and permanent Rules published in the Federal Register by the executive departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation.

Conditional Letter of Map Revision (CLOMR). FEMA's comment on a proposed project, which does not revise an effective floodplain map, that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodplain.

Critical facility. A structure or related infrastructure, but not the land on which it is situated, as specified in Section 23-30 of this Article, that if flooded may result in significant hazards to public health and safety or interrupt essential services and operations for the City at any time before, during and after a flood.

Development. Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials DFIRM Database. Database (usually spreadsheets containing data and analyses that accompany DFIRMs). The FEMA Mapping Specifications and Guidelines outline requirements for the development and maintenance of DFIRM databases.

Digital Flood Insurance Rate Map (DFIRM). FEMA digital floodplain map. These digital maps serve as "regulatory floodplain maps" for insurance and floodplain management purposes.

Elevated building. A non-basement building (i) built, in the case of a building in Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, to have the top of the elevated floor above the ground level by means of pilings, columns (posts and piers), or shear walls parallel to the flow of the water and (ii) adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood. In the case of Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood waters.

Existing manufactured home park or subdivision. A manufactured home park for which the construction of facilities for servicing the lot on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads, and the construction of streets) was completed before June 12, 1989.

Expansion to an existing manufactured home park or manufactured home subdivision. The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, either final site grading or pouring of concrete pads, or the construction of streets).

FEMA. Federal Emergency Management Agency, the agency responsible for administering the National Flood Insurance Program.

Flood or flooding. A general and temporary condition of partial or complete inundation of normally dry land areas from:

- (1) The overflow of inland or tidal waters; and/or
- (2) The unusual and rapid accumulation of runoff of surface waters from any source.
- (3) Mudslides or mudflows that occur from excess surface water that is combined with mud or other debris that is sufficiently fluid so as to flow over the surface of normally dry land areas (such as earth carried by a current of water and deposited along the path of the current).

Flood Insurance Rate Map (FIRM). The official map on which the Federal Emergency Management Agency has delineated both the Special Flood Hazard Areas and the risk premium zones applicable to the community.

Flood insurance study. The official report provided by the Federal Emergency Management Agency that includes the Flood Insurance Rate Map as well as flood profiles for studied flooding sources that can be used to determine Base Flood Elevations for some areas.

Floodplain or Flood-Prone Area. Any land area susceptible to being inundated as the result of a flood, including the area of land over which floodwater would flow from the spillway of a reservoir.

Floodplain Administrator. The Floodplain Administrator shall be the Superintendent of the Public Works Department and is designated to administer and enforce the floodplain management regulations.

Floodplain development permit. A permit required before construction or development begins within any Special Flood Hazard Area (SFHA). If FEMA has not defined the SFHA within a community, the community shall require permits for all proposed construction or other development in the community including the placement of manufactured homes, so that it may determine whether such construction or other development is proposed within flood-prone areas. Permits are

required to ensure that proposed development projects meet the requirements of the NFIP and this floodplain management ordinance.

Floodproofing. Any combination of structural and/or non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway. The channel of a river or other watercourse and adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. The Colorado statewide standard for the designated height to be used for all newly studied reaches shall be one-half foot (six inches). Letters of Map Revision to existing floodway delineations may continue to use the floodway criteria in place at the time of the existing floodway delineation.

Freeboard. The vertical distance in feet above a predicted water surface elevation intended to provide a margin of safety to compensate for unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood such as debris blockage of bridge openings and the increased runoff due to urbanization of the watershed.

Functionally dependent use. A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

Highest adjacent grade. The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic structure. Any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

a. By an approved state program as determined by the Secretary of the Interior; or

b. Directly by the Secretary of the Interior in states without approved programs.

Letter of Map Revision (LOMR), FEMA's official revision of an effective Flood Insurance Rate Map (FIRM), or Flood Boundary and Floodway Map (FBFM), or both. LOMRs are generally based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA).

Letter of Map Revision Based On Fill (LOMR-F). FEMA's modification of the Special Flood Hazard Area (SFHA) shown on the Flood Insurance Rate Map (FIRM) based on the placement of fill outside the existing regulatory floodway.

Lowest floor. The lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of Section 60.3 of the National Flood insurance Program regulations.

Manufactured home. A structure, transportable in one (1) or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term manufactured home also includes mo-

bile homes, park trailers, travel trailers and similar transportable structures that are placed on a site for one hundred eighty (180) consecutive days or longer. The term manufactured home does not include a recreational vehicle.

Manufactured home park or subdivision. A parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

National Flood Insurance Program (NFIP). FEMA's program of flood insurance coverage and floodplain management administered in conjunction with the Robert T. Stafford Relief and Emergency Assistance Act. The NFIP has applicable Federal regulations promulgated in Title 44 of the Code of Federal Regulations. The U.S. Congress established the NFIP in 1968 with the passage of the National Flood Insurance Act of 1968.

New construction. Structures for which the start of construction commenced on or after June 12, 1989.

New manufactured home park or manufactured home subdivision. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads) was completed on or after June 12, 1989.

No-rise certification. A record of the results of an engineering analysis conducted to determine whether a project will increase flood heights in a floodway. A No-Rise Certification must be supported by technical data and signed by a registered Colorado Professional Engineer. The supporting technical data should be based on the standard step-backwater computer model used to develop the 100-year floodway shown on the Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map (FBFM).

Recreational vehicle. A vehicle which is:

- (1) Built on a single chassis;
- (2) Four hundred (400) square feet or less when measured at the largest horizontal projections;
- (3) Designed to be self-propelled or permanently towable by a light-duty truck; and

(4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

Start of construction includes substantial improvement, and means the date the building permit was issued, provided that the actual start of construction, repair, reconstruction, placement or other improvement was within one hundred eighty (180) days of the permit date. The actual start means the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of pilings, the construction of columns or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

Structure. A walled and roofed building or manufactured home that is principally above-ground.

Substantial damage. Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred.

Substantial improvement. Any rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

- (1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications which have been identified by the local Code Enforcement Official and which are the minimum necessary to assure safe living conditions; or
- (2) Any alteration of an historic structure provided that the alteration will not preclude the structure's continued designation as a "historic structure."

Variance. A grant of relief from the requirements of this Article which permits construction in a manner that would otherwise be prohibited by this Article.

Violation. The failure of a structure or other development to be fully compliant with this Article. A structure or other development without the elevation certificate, other certifications, or any other evidence of compliance required by this Article is presumed to be in violation until such time as that documentation is provided.

Water surface elevation. The height, in relation to the North American Vertical Datum (NAVD) of 1988 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

(Ord. 8 §1, 2006; Ord. 1 §2, 2007; Ord. 1 §2, 2014)

Sec. 23-5. Compliance.

No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this Article and other applicable regulations.

(Ord. 8 §1, 2006; Ord. 1 §2, 2014)

Sec. 23-6. Interpretation.

(A) This Article is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this Article and another ordinance, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

(B) In the interpretation and application of this Article, all provisions shall be considered minimum requirements, liberally construed in favor of the City Council and deemed neither to limit nor repeal any other powers granted under state statutes.

(C) The degree of flood protection required by this Article is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Article does not imply that land outside the Special Flood Hazard Areas or uses permitted within such areas will be free from flooding or flood damages. This Article shall not create liability on the part of the City, any officer or employee thereof or the Federal Emergency Management Agency

for any flood damages that result from reliance on this Article or any administrative decision lawfully made thereunder.

(Ord. 8 §1, 2006; Ord. 1 § 2, 2014)

Secs. 23-7—23-10. Reserved.

Division 2

Administration and Enforcement

Sec. 23-11. Floodplain development permit.

(A) A floodplain development permit shall be obtained before construction or development begins within any Special Flood Hazard Area.

(B) Application for a development permit shall be made on forms furnished by the City and shall include but not be limited to:

(1) Description of the land on which the proposed development is to be conducted by legal description or similar description that will readily identify and definitely locate the site.

(2) Plans in duplicate, drawn to scale showing:

(a) The nature, location, dimensions and current elevations of the area in question;

(b) Delineation of flood hazard areas, floodway boundaries, flood zones and flood elevations; and

(c) Proposed excavation, fill and grading with resulting proposed elevations of the area.

(3) Existing or proposed structures and the intended use of each.

(4) Location of fill, storage of materials and drainage facilities.

(5) Elevation in relation to mean sea level of the lowest floor (including basement) of all structures.

(6) Elevation in relation to mean sea level to which any structure has been floodproofed.

(7) Certification by a registered professional engineer that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Paragraph 23-22(2) of this Article.

(8) Description of the extent to which any watercourse will be altered or relocated as a result of the proposed development.

(9) Payment of a fee as set forth in the City's fee schedule.

(Ord. 8 §1, 2006; Ord. 1 § 2, 2014)

Sec. 23-12. Floodplain Administrator.

(A) The duties of the Floodplain Administrator shall include, but not be limited to, the duty to:

(1) Review all development permit applications to determine that the requirements of this Article have been satisfied.

(2) Review all development permit applications to determine that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval is required.

(3) Review all development permit applications to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of Paragraph 23-26(1) of this Article are met.

(4) Inspect all development at appropriate times during the period of construction to ensure compliance with all provisions of this ordinance, including proper elevation of the structure.

(5) Maintain for public inspection all records pertaining to the provisions of this Article;

(6) Notify adjacent communities and the Colorado Water Conservation Board prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency;

(7) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished; and

(8) Make interpretations where needed as to the exact location of the boundaries of the Special Flood Hazard Areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 23-13 below.

(9) When Base Flood Elevation data has not been provided in accordance with Section 23-3, the Floodplain Administrator shall obtain, review and reasonably utilize any Base Flood Elevation data and Floodway data available from a Federal, State, or other source, in order to administer the provisions of Division 3.

(10) For waterways with Base Flood Elevations for which a regulatory Floodway has not been designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one-half foot at any point within the community.

(11) Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program regulations, a community may approve certain development in Zones A1-30, AE, AH, on the community's FIRM which increases the water surface elevation of the base flood by more than one-half foot, provided that the community first applies for a conditional FIRM revision through FEMA (Conditional Letter of Map Revision), fulfills the requirements for such revisions as established under the provisions of Section 65.12 and receives FEMA approval.

(B) For all new or substantially improved floodproofed structures, the Floodplain Administrator shall:

(1) Verify and record the actual elevation (in relation to mean sea level) to which the structure has been floodproofed; and

(2) Maintain the floodproofing certifications required in Section 23-11 above

(C) Approval or denial of a development permit by the Floodplain Administrator shall be based on all of the provisions of this Article and the following relevant factors:

(1) The danger that materials may be swept onto other lands to the injury of others.

(2) The danger to life and property due to flooding or erosion damage.

(3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.

(4) The importance of the services provided by the proposed facility to the community.

(5) The necessity to the facility of a waterfront location, where applicable.

(6) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage.

(7) The compatibility of the proposed use with existing and anticipated development.

(8) The relationship of the proposed use to the Comprehensive Plan and floodplain management program for that area.

(9) The safety of access to the property in times of flood for ordinary and emergency vehicles.

(10) The expected height, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site.

(11) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities, such as sewer, gas, electrical and water systems, and streets and bridges.

(Ord. 8 §1, 2006; Ord. 1 §3, 2007; Ord. 1 §2, 2014)

Sec. 23-13. Variances and appeals.

(A) The Variance Board shall hear and decide requests for variances from the requirements of this Article. The Variance Board shall hear and decide appeals when it is alleged there is an error in any requirement,

decision or determination made by the Floodplain Administrator in the enforcement or administration of this Article.

(B) Those aggrieved by the decision of the Variance Board or any taxpayer may appeal such decisions to the District Court of the County, as provided under Rule 106(a)(4) of the Colorado Rules of Civil Procedure.

(C) Upon consideration of the factors in this Section and the purposes of this Article, the Variance Board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Article.

(D) The City Clerk shall maintain the records of all appeal actions, including technical information. The Floodplain Administrator shall report any variances to the Federal Emergency Management Agency.

(E) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places without regard to the procedures set forth in the remainder of this Section, so long as the reconstruction, rehabilitation or restoration will not preclude the structure's continued designation as an historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

(F) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(G) Variances shall only be issued upon:

- (1) A showing of good and sufficient cause;
- (2) A determination that failure to grant the variance would result in exceptional hardship to the applicant;
- (3) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, nuisances or fraud on or victimization of the public, or conflict with existing local laws or ordinances; and

(4) A determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(H) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

(Ord. 8 §1, 2006; Ord. 1 §4, 2007; Ord. 1 §2, 2014)

Secs. 23-14—23-20. Reserved.

Division 3

Provisions for Flood Hazard Reduction

Secs. 23-21. Generally.

(A) In all Special Flood Hazard Areas, the following standards are required:

(1) All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure and shall be capable of resisting the hydrostatic and hydrodynamic loads.

(2) All manufactured homes must be elevated and anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces. Specific requirements are:

(a) Over-the-top ties shall be provided at each of the four (4) corners of the manufactured home, with two (2) additional ties per side at intermediate locations, with manufactured homes more than fifty (50) feet long requiring one (1) additional tie per side;

(b) Frame ties shall be provided at each corner of the home with five (5) additional ties per side at intermediate points, with manufactured homes more than fifty (50) feet long requiring four (4) additional ties per side;

(c) All components of the anchoring system shall be capable of carrying a force of four thousand eight hundred (4,800) pounds; and

(d) Any additions to the manufactured home shall be similarly anchored.

(B) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage. New construction and substantial improvements shall be constructed with the electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage. (Ord. 8 §1, 2006; Ord. 1 § 2, 2014)

Sec. 23-22. Areas where base flood elevation data known.

In all Special Flood Hazard Areas where base flood elevation data has been provided, the following provisions are required:

(1) New construction and substantial improvement of any residential structure shall have the lowest floor, including the basement, elevated to one foot above base flood elevation.

(2) New construction and substantial improvement of any commercial, industrial or other non-residential structure shall either have the lowest floor, including the basement, elevated to one foot above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

(a) Be floodproofed so that, below one foot above the base flood elevation, the structure is watertight with walls substantially impermeable to the passage of water;

(b) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

(c) Be certified by a registered professional engineer that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of

this Paragraph. Such certifications shall be provided to the Floodplain Administrator as set forth in this Article.

(Ord. 8 §1, 2006; Ord. 1 §5, 2007; Ord. 1 § 2, 2014)

Sec. 23-23. Manufactured homes.

(A) Manufactured homes shall be anchored in accordance with this Article.

(B) All manufactured homes that are placed or substantially improved within Zones AH and AE shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to one foot above the base flood elevation and shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

(C) All manufactured homes to be placed or substantially improved on sites in existing manufactured home parks or subdivisions within Zones A1 30, AH and AE that are not subject to the provisions of Subsection (B) above shall be elevated so that either:

(1) The lowest floor of the manufactured home is one foot above the base flood elevation; or

(2) The manufactured home chassis is supported by reinforced piers or other foundation elements that are no less than thirty-six (36) inches in height above grade, and is securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement. (Ord. 8 §1, 2006; Ord. 1 § 2, 2014)

Sec. 23-24. Subdivision proposals.

All subdivision proposals shall be consistent with the need to minimize flood damage. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage. If not otherwise provided, Base Flood Elevation data shall be provided for subdivision proposals and other proposed developments.

(Ord. 8 §1, 2006; Ord. 1 § 2, 2014)

Sec. 23-25. Water and sewer systems.

All new and replacement water supply systems shall be designated to minimize or eliminate infiltration of flood waters into the systems. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

(Ord. 8 §1, 2006; Ord. 1 § 2, 2014)

Sec. 23-26. Floodways.

Located within the Special Flood Hazard Areas are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions apply:

(1) Encroachments, including fill, new construction, substantial improvements and other development, are prohibited unless certification by a registered professional engineer is provided, demonstrating that encroachments shall not result in any increase (requires a No-Rise Certification) in flood levels during the occurrence of the base flood discharge.

(2) If Paragraph (1) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this Division.

(3) Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Regulations, the City may permit encroachments within the adopted regulatory floodway that would result in an increase in Base Flood Elevations, provided that the Applicant first applies for a CLOMR and floodway revision through FEMA.

(Ord. 8 §1, 2006; Ord. 1 § 2, 2014)

Sec. 23-27. Below-grade residential crawlspace construction.

New construction and substantial improvement of any below-grade crawlspace shall:

(A) Have the interior grade elevation that is below base flood elevation no lower than two (2) feet below the lowest adjacent grade.

(B) Have the height of the below-grade crawlspace measured from the interior grade of the crawlspace to the top of the foundation wall, not to exceed four (4) feet at any point.

(C) Have an adequate drainage system that allows floodwaters to drain from the interior area of the crawlspace following a flood.

(D) Be anchored to prevent flotation, collapse or lateral movement of the structure and be capable of resisting the hydrostatic and hydrodynamic loads.

(E) Be constructed with materials and utility equipment resistant to flood damage.

(F) Be constructed using methods and practices that minimize flood damage.

(G) Be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(H) Be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

(1) A minimum of two (2) openings having a total net area of not less than one (1) square inch to every square foot of enclosed area subject to flooding shall be provided;

(2) The bottom of all openings shall be no higher than one (1) foot above grade; and

(3) Openings may be equipped with screens, louvers or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.

(Ord. 1 §6, 2007; Ord. 1 § 2, 2014)

Sec. 23-28. Alteration of a watercourse.

For all proposed developments that alter a watercourse within a Special Flood Hazard Area, the following standards apply:

(A) Channelization and flow diversion projects shall appropriately consider issues of sediment transport, erosion, deposition, and channel migration

and properly mitigate potential problems through the project as well as upstream and downstream of any improvement activity. A detailed analysis of sediment transport and overall channel stability should be considered, when appropriate, to assist in determining the most appropriate design.

(B) Channelization and flow diversion projects shall evaluate the residual one hundred (100) year floodplain.

(C) Any channelization or other stream alteration activity proposed by a project proponent must be evaluated for its impact on the regulatory floodplain and be in compliance with all applicable Federal, State and local floodplain rules, regulations and ordinances.

(D) Any stream alteration activity shall be designed and sealed by a registered Colorado Professional Engineer or Certified Professional Hydrologist.

(E) All activities within the regulatory floodplain shall meet all applicable Federal, State and City of Idaho Springs floodplain requirements and regulations.

(F) Within the Regulatory Floodway, stream alteration activities shall not be constructed unless the project proponent demonstrates through a Floodway analysis and report, sealed by a registered Colorado Professional Engineer, that there is not more than a 0.00-foot rise in the proposed conditions compared to existing conditions Floodway resulting from the project, otherwise known as a No-Rise Certification, unless the community first applies for a CLOMR and Floodway revision in accordance with Section 23-26 of this Article.

(G) Maintenance shall be required for any altered or relocated portions of watercourses so that the flood-carrying capacity is not diminished.
(Ord. 1 § 2, 2014)

Sec. 23-29. Properties removed from the floodplain by fill.

A Floodplain Development Permit shall not be issued for the construction of a new structure or addition to an existing structure on a property removed from the floodplain by the issuance of a FEMA Letter

of Map Revision Based on Fill (LOMR-F), with a lowest floor elevation placed below the Base Flood Elevation with one foot of freeboard that existed prior to the placement of fill.

(Ord. 1 § 2, 2014)

Sec. 23-30. Standards for critical facilities.

A Critical Facility is a structure or related infrastructure, but not the land on which it is situated, as specified in Rule 6 of the Rules and Regulations for Regulatory Floodplains in Colorado, that if flooded may result in significant hazards to public health and safety or interrupt essential services and operations for the community at any time before, during and after a flood.

(A) Classification of Critical Facilities.

(1) It is the responsibility of the City Council to identify and confirm that specific structures in the City meet the following criteria:

(2) Critical Facilities are classified under the following categories: (a) Essential Services; (b) Hazardous Materials; (c) At-risk Populations; and (d) Vital to Restoring Normal Services.

(a) Essential services facilities include public safety, emergency response, emergency medical, designated emergency shelters, communications, public utility plant facilities, and transportation lifelines.

These facilities consist of:

i. Public safety (police stations, fire and rescue stations, emergency vehicle and equipment storage, and, emergency operation centers);

ii. Emergency medical (hospitals, ambulance service centers, urgent care centers having emergency treatment functions, and non-ambulatory surgical structures but excluding clinics, doctors' offices, and non-urgent care medical structures that do not provide these functions);

iii. Designated emergency shelters;

iv. Communications (main hubs for telephone, broadcasting equipment for cable systems, satellite dish systems, cellular systems, television, radio, and other emergency warning systems, but excluding towers, poles, lines, cables, and conduits);

v. Public utility plant facilities for generation and distribution (hubs, treatment plants, substations and pumping stations for water, power and gas, but not including towers, poles, power lines, buried pipelines, transmission lines, distribution lines, and service lines); and

vi. Air Transportation lifelines (airports (municipal and larger)), helicopter pads and structures serving emergency functions, and associated infrastructure (aviation control towers, air traffic control centers, and emergency equipment aircraft hangars).

Specific exemptions to this category include wastewater treatment plants (WWTP), non-potable water treatment and distribution systems, and hydroelectric power generating plants and related appurtenances.

Public utility plant facilities may be exempted if it can be demonstrated to the satisfaction of the City Council that the facility is an element of a redundant system for which service will not be interrupted during a flood. At a minimum, it shall be demonstrated that redundant facilities are available (either owned by the same utility or available through an intergovernmental agreement or other contract) and connected, the alternative facilities are either located outside of the one hundred-year floodplain or are compliant with the provisions of this Article, and an operations plan is in effect that states how redundant systems will provide service to the affected area in the event of a flood. Evidence of ongoing redundancy shall be provided to the City Council on an as-needed basis upon request.

(b) Hazardous materials facilities include facilities that produce or store highly volatile, flammable, explosive, toxic and/or water-reactive materials.

These facilities may include:

i. Chemical and pharmaceutical plants (chemical plant, pharmaceutical manufacturing);

ii. Laboratories containing highly volatile, flammable, explosive, toxic and/or water-reactive materials;

iii. Refineries;

iv. Hazardous waste storage and disposal sites; and

v. Above ground gasoline or propane storage or sales centers.

Facilities shall be determined to be Critical Facilities if they produce or store materials in excess of threshold limits. If the owner of a facility is required by the Occupational Safety and Health Administration (OSHA) to keep a Material Safety Data Sheet (MSDS) on file for any chemicals stored or used in the work place, AND the chemical(s) is stored in quantities equal to or greater than the Threshold Planning Quantity (TPQ) for that chemical, then that facility shall be considered to be a Critical Facility. The TPQ for these chemicals is: either five hundred (500) pounds or the TPQ listed (whichever is lower) for the 356 chemicals listed under 40 CFR 302 (2010), also known as Extremely Hazardous Substances (EHS); or ten thousand (10,000) pounds for any other chemical. This threshold is consistent with the requirements for reportable chemicals established by the Colorado Department of Health and Environment. OSHA requirements for MSDS can be found in 29 CFR § 1910 (2010). The Environmental Protection Agency (EPA) regulation "Designation, Reportable Quantities, and Notification," 40 CFR § 302 (2010) and OSHA regulation "Occupational Safety and Health Standards," 29 CFR § 1910 (2010) are incorporated herein by reference and include the regulations in existence at the time of the promulgation this ordinance, but exclude later amendments to or editions of the regulations.

Specific exemptions to this category include:

i. Finished consumer products within retail centers and households containing hazardous materials intended for household use, and agricultural products intended for agricultural use.

ii. Buildings and other structures containing hazardous materials for which it can be demonstrated to the satisfaction of the local authority having jurisdiction by hazard assessment and certification by a qualified professional (as determined by the local jurisdiction having land use authority) that a release of the subject hazardous material does not pose a major threat to the public.

iii. Pharmaceutical sales, use, storage, and distribution centers that do not manufacture pharmaceutical products.

These exemptions shall not apply to buildings or other structures that also function as Critical Facilities under another category outlined in this Article.

(c) At-risk population facilities include medical care, congregate care, and schools.

These facilities consist of:

i. Elder care (nursing homes);

ii. Congregate care serving 12 or more individuals (day care and assisted living);

iii. Public and private schools (pre-schools, K-12 schools), before-school and after-school care serving 12 or more children);

(d) Facilities vital to restoring normal services including government operations.

These facilities consist of:

i. Essential government operations (public records, courts, jails, building permitting and inspection services, community administration and management, maintenance and equipment centers);

ii. Essential structures for public colleges and universities (dormitories, offices, and classrooms only).

These facilities may be exempted if it is demonstrated to the City Council that the facility is an element of a redundant system for which service will not be interrupted during a flood. At a minimum, it shall be demonstrated that redundant facilities are available (either owned by the same entity or available through an intergovernmental agreement or other contract), the alternative facilities are either located outside of the one hundred-year floodplain or are compliant with this ordinance, and an operations plan is in effect that states how redundant facilities will provide service to the affected area in the event of a flood. Evidence of ongoing redundancy shall be provided to the City Council on an as-needed basis upon request.

(B) Protection for Critical Facilities.

All new and substantially improved Critical Facilities and new additions to Critical Facilities located within the Special Flood Hazard Area shall be regulated to a higher standard than structures not determined to be Critical Facilities. For the purposes of this Subsection, protection shall include one of the following:

(1) Location outside the Special Flood Hazard Area; or

(2) Elevation or floodproofing of the structure to at least two (2) feet above the Base Flood Elevation.

(C) Ingress and egress for new critical facilities.

New Critical Facilities shall, when practicable as determined by the City Council, have continuous non-inundated access (ingress and egress for evacuation and emergency services) during a one hundred-year flood event.

(Ord. 1 § 2, 2014)

ARTICLE II

Erosion and Sedimentation Control

Sec. 23-31. Legislative intent.

This Article is intended to preserve the public health, welfare, safety and environment through the reduction or control of erosion, runoff, sediment loading and water pollution from earth-disturbing activities by regulating such activities and excavation and requiring measures to control erosion, runoff and water pollution both during and after the time such activities are undertaken.

(Ord. 8 §1, 2006)

Sec. 23-32. Definitions.

The following terms, when used in this Article, shall have the meanings ascribed to them in this Section, except where context clearly indicates a different meaning:

Administrator. The person appointed to oversee the Public Works Department, who shall be responsible for administration and enforcement of this Article.

Best management practices or *BMPs.* Permanent measures and measures taken during construction described in or adapted from the Manual to protect water quality and control runoff and erosion from earth-disturbing activities.

BMP plan. A detailed, site-specific description of the BMPs to be implemented, both during the earth-disturbing activity and permanently.

Construction. Construction of any building or other structure above, below or above and below grade.

Earth-disturbing activity. Any change to the natural vegetation, soil, rock, drainage or topography, and includes all grading, filling, excavating, clearing vegetation, clearing timber, snow plowing or removal, snow storage, construction of buildings or other improvements. Any activity that may result in or contribute to accelerated soil erosion or sediment transport is included.

Excavating. Any act by which soil or rock is cut into, exposed, dug, quarried, removed or relocated.

Exempt activity. Any earth-disturbing activity exempted by Section 23-34 below from certain requirements.

Filling. Any act by which soil, rock, gravel, concrete, asphalt or other construction materials are placed, stockpiled, dumped or relocated onto the land, whether the land is in its natural state or has been altered by grading, excavating or prior filling.

Grading. Any alteration of the existing topography.

Large-scale activity. Any earth-disturbing activity that disturbs more than one (1) acre or moves more than three thousand five hundred (3,500) cubic yards of material. Earth-disturbing activities at separate locations within one (1) site or project, such as different lots in a subdivision under common ownership or development, will be considered together.

Manual. The Guide to Water Quality Protection and Erosion Control adopted herewith, or as it may be amended.

Permit. Any City grading or excavating permit, building permit, sanitation permit, road cut permit, road construction permit, special use permit, planned unit development approval, conditional use permit, final development plan or mining permit.

Sand storage. Stockpiling salt, sand or other substances used for deicing or improving traction on roads and parking lots.

Snow storage. Stockpiling snow removal from a street, road, highway, driveway or other site off the site from which it is removed.

(Ord. 8 §1, 2006)

Sec. 23-33. Best management practices required.

(A) No person shall engage in any earth-disturbing activity without utilization of best management practices to prevent erosion and sedimentation which could adversely affect water quality during and after the time such activities are undertaken.

(B) Best management practices are described in the Manual. Since the circumstances of each earth-disturbing activity are different, different BMPs may be required. The Administrator shall approve the selection of applicable BMPs. The Administrator may approve other practices or variations from the standards

in the Manual where the BMP prescribed in the Manual is not practical, or which will be at least as effective in meeting the goals of this Article.

(C) No person shall undertake any large-scale earth-disturbing activity except pursuant to an approved BMP plan. No permit shall be issued for any activity or project that includes any large-scale, earth-disturbing activity without incorporating an approved BMP plan. The proposed BMP plan must be submitted by the owner of the land on which the activity is to occur.

(D) BMP plans for large-scale activities shall incorporate sufficient measures, identified in the Manual or by qualified individuals, to prevent accelerated erosion, off-site sediment transport or adverse effects on water quality.

(E) Persons undertaking exempt activities shall use best management practices during the activity.

(F) The Manual may be amended from time to time by resolution of the City Council.

(G) Installation of all permanent improvements required pursuant to this Article is required prior to issuance of final project approval or a certificate of occupancy.

(H) No graded, excavated or fill material or snow shall be deposited or stockpiled in a natural watercourse or where eroded material or melted snow will directly enter a natural watercourse.
(Ord. 8 §1, 2006)

Sec. 23-34. Best management practices; exemptions.

(A) Notwithstanding the provisions of Section 23-33 above, no BMP plan shall be required for the following exempt activities:

(1) Earth-disturbing activities that disturb less than one (1) acre, unless occurring within the one-hundred-year floodplain as described for Clear Creek, Chicago Creek or Soda Creek within the boundaries of the City.

(2) Earth-disturbing activities involving less than three thousand five hundred (3,500) cubic yards of material, unless occurring within the one-hundred-year floodplain as described for Clear Creek, Chicago Creek or Soda Creek within the boundaries of

the City, in which case the exemption shall apply to earth-disturbing activities involving less than eight (8) cubic yards of material.

(3) Clearing vegetation or timber from less than one (1) acre.

(4) Routine maintenance, including grading of state highways, county roads or City streets by the State, County, City or its contractors.

(5) Digging and filling graves in a cemetery.

(6) Tillage of land for agricultural or silvicultural purposes, and harvesting agricultural crops.

(7) Earth-disturbing activity authorized by an existing building permit.

(8) Snow plowing or removal where the snow is deposited on the shoulder or edge of the plowed road, driveway or site.

(B) Where exempt activity is part of a project requiring a permit, the applicant for such permit shall so state in the application.

(C) If the Administrator determines that unreasonable erosion, off-site sediment transport or water pollution is threatened by or results from an exempt activity, the Administrator may order the activity to cease until a BMP plan is approved and implemented.
(Ord. 8 §1, 2006)

Sec. 23-35. Fees; performance guaranty.

(A) Fees. Fees for applications, review, inspection, enforcement and exemption shall, from time to time, be set by resolution of the City Council. In addition, the Administrator may require the applicant to advance the cost of expected expenditures for consultation with a registered professional engineer or other expert to review the plan or confirm compliance. Any fees incurred by the City in excess of the amount advanced will be paid by the applicant prior to plan approval.

(B) Performance guaranty. A bond or other performance guaranty in a form acceptable to the City Attorney must be furnished prior to issuance of a permit. The amount of the bond or other performance guaranty shall be determined by the Administrator, and shall be adequate to reasonably assure that the City can permanently stabilize any unfinished earth-disturbing

activity. The bond or other performance guaranty shall be released when the site is permanently stabilized. Re-vegetation will be considered permanently stabilized no sooner than one (1) year after initial planting. (Ord. 8 §1, 2006)

Sec. 23-36. Administration.

(A) Review and approval of plans. The Administrator shall review BMP plans promptly, but in no case longer than sixty (60) days after submittal, and may approve, disapprove or approve with conditions. Findings by the Administrator shall be in writing.

(B) Inspection. The Administrator may enter on public or private property at any time to investigate compliance with this Article. The Administrator shall inspect the work and may order the owner to take necessary measures to assure compliance, including hiring a registered professional engineer or other expert to confirm compliance.

(C) Enforcement. The Administrator may issue such written orders as are necessary to ensure compliance with this Article, which may include an order to stop work or to repair any damage. The owner or owner's agents or contractors shall thereupon take all actions specified in the written order no later than the date specified therein. Notwithstanding the availability or use of any other remedy, the Administrator may institute action in any court of competent jurisdiction to permit inspection or to enjoin, restrain or prevent violation of this Article or of a BMP plan.

(D) Posting of plan. A copy of the BMP plan and approval shall be kept on the job site.

(E) Validity of plan approval. Approval of a BMP plan is valid for two (2) years. A new application and approval are required if the project is not complete in two (2) years.

(F) Appeals. Any decision of the Administrator may be appealed to the City Council by filing a notice of appeal within twenty (20) days. (Ord. 8 §1, 2006)

Sec. 23-37. Penalty.

In addition to any other remedy that may be available, the Administrator may, by written order, levy a fine for violation of this Article not to exceed one thousand dollars (\$1,000.00) per day per violation. (Ord. 8 §1, 2006)

Sec. 23-38. Liability of City.

Nothing herein or in any permit, approval or exemption shall render the City or any of its officers, employees or agents liable for any injury or damage to persons or property, other consequence of any action or failure to act of any permittee or other person acting pursuant to or in violation of this Article or any permit, approval or exemption. (Ord. 8 §1, 2006)

Secs. 23-39—23-50. Reserved.